ENVIRONMENTAL SERVICES
SPB05-894P-H

1. PARTIES

THIS CONTRACT, is entered into by and between the State of Montana, Department of Administration, State Procurement Bureau, (hereinafter referred to as "the State"), whose address and phone number are Room 165 Mitchell Building, 125 North Roberts, PO Box 200135, Helena MT 59620-0135, (406) 444-2575 and **Confluence Consulting, Inc.**, (hereinafter referred to as the "Contractor"), whose nine digit Federal ID Number, address and phone number are 84-1382334, 1115 N 7th, Suite 1, PO Box 1133, Bozeman MT 59771-1133, and (406) 585-9500.

THE PARTIES AGREE AS FOLLOWS:

2. PURPOSE

The purpose of this term contract is to establish a list of Environmental Service Providers in several service areas. All qualified offerors will be assembled into a multiple contractor term contract for use by state agencies and other public procurement units. The State makes no guarantee of use by any agency-authorized access to this term contract. However, through data conveyed by the Montana Department of Environmental Quality, Montana Department of Natural Resources and Conservation, and Montana Fish, Wildlife and Parks, it is anticipated that this term contract should access approximately 2.5 million dollars or more annually.

3. EFFECTIVE DATE, DURATION, AND RENEWAL

3.1 Contract Term. This contract shall take effect upon execution of all signatures, and terminate on June 30, 2009, unless terminated earlier in accordance with the terms of this contract. (Mont. Code Ann. § 18-4-313.)

3.2 Contract Renewal. This contract may, upon mutual agreement between the parties and according to the terms of the existing contract, be renewed in one-year intervals, or any interval that is advantageous to the State, for a period not to exceed a total of two additional years. This renewal is dependent upon legislative appropriations.

3.3 Addition of Analytical Laboratory Contractor. Proposals will be accepted between April 1 and May 1 of each calendar year from current firms requesting review of their qualifications to perform Analytical Laboratory Services as originally requested under RFP SPB05-894P. The state will evaluate each proposal received in the exact manner in which the original proposals for other categories were evaluated. If proposal passes the requirements as evaluated to perform Analytical Lab Services, the state will update that firms term contract to include the Analytical Lab Services category contingent on said firm being in good standing otherwise.

4. NON-EXCLUSIVE CONTRACT

The intent of this contract is to provide state agencies with an expedited means of procuring supplies and/or services. This contract is for the convenience of state agencies and is considered by the State Procurement Bureau to be a "Non-exclusive" use contract. Therefore, agencies may obtain this product/service from sources other than the contract holder(s) as long as they comply with Title 18, MCA, and their delegation agreement. The State Procurement Bureau does not guarantee any usage.

5. COOPERATIVE PURCHASING

Under Montana law, public procurement units, as defined in section 18-4-401, MCA, have the option of cooperatively purchasing with the State of Montana. Public procurement units are defined as local or state public procurement units of this or any other state, including an agency of the United States, or a tribal procurement unit. Unless the bidder/offeror objects, in writing, to the State Procurement Bureau prior to the

award of this contract, the prices, terms, and conditions of this contract will be offered to these public procurement units.

6. TERM CONTRACT REPORTING

Term contract holder(s) shall furnish annual reports of term contract usage. Each report shall contain complete information on all public procurement units utilizing this term contract. Minimum information required to be included in usage reports: name of the agency or governmental entity who contacted you regarding a potential project; project title; agency contact person; if the project was not successfully negotiated, state the reason; number and title of contracts received; total dollar amounts for contracts received; the names of your company personnel involved in the project; and project status as of usage report date. The report for this term contract will be due on July 20th of each year.

Reported volumes and dollar totals may be checked by the State Procurement Bureau against State records for verification. Failure to provide timely or accurate reports is justification for cancellation of the contract and/or justification for removal from consideration for award of contracts by the State.

7. COST/PRICE ADJUSTMENTS

7.1 Cost Increase by Mutual Agreement. After the initial term of the contract, each renewal term may be subject to a cost increase by mutual agreement. Contractor must provide written, verifiable justification for any cost adjustments they request during each renewal period. Contractor shall provide its cost adjustments in both written and electronic format.

7.2 Differing Site Conditions. If, during the term of this contract, circumstances or conditions are materially different than set out in the specifications, the Contractor may be entitled to an equitable adjustment in the contract price. The Contractor shall immediately cease work and notify, in writing, the State of any such conditions necessitating an adjustment as soon as they are suspected and prior to the changed conditions affecting the performance of this contract. Any adjustment shall be agreed upon in writing by both parties to the contract.

7.3 Cost/Price Adjustment. All requests for cost/price adjustment must be submitted between April 1st and April 30th along with written justification. Requests received after April 30th will not be considered unless written approval from the SPB Contracts Officer is given to submit at a later date. In no event will cost/price adjustments be allowed beyond May 15th. All requests that are approved will be incorporated by contract amendment and made effective July 1st of the next approved renewal period.

8. SERVICES AND/OR SUPPLIES

8.1 Service Categories. Contractor agrees to provide to the State the following services:

Water Quality Monitoring – Fixed Station and Probabilistic Design. The statewide monitoring network has three components. The first component is the fixed station water quality-monitoring network. There are 38 fixed station sites located on streams throughout Montana where there are active USGS gauging stations. The USGS is currently contracted to collect all of the water chemistry samples. The State may also collect sediment samples for trace metal analyses. Remote sensing may be used to assess stream geomorphology, flood plain and watershed characteristics.

Water Quality Monitoring - Lakes and Streams. As part of the monitoring program, standards criteria and TMDL development, lakes will continue to be sampled collecting chemistry, physical, and habitat parameters. Stream sampling may include sediment and water chemistry, geomorphology, habitat, or sources of pollutants (e.g., pebble counts, channel cross-section, stream reach assessments, photo points, Rosgen Type II, etc GIS and remote sensing may be used to assess riparian habitats, and watershed physical characteristics.

Water Quality Monitoring - Reference Sites. As part of the monitoring program and standards criteria development, reference sites will continue to be identified and characterized as described above.

TMDL Targets. The TMDL program (within DEQ) will often need additional data in order to develop TMDL targets. Targets are quantitative water quality goals or "endpoints" that represent all the applicable narrative or numeric water quality standards. These targets, when achieved will represent full beneficial use support. This may require additional monitoring to determine reference condition when TMDL targets are based on narrative criteria or designated uses (water quality standards). Targets may be based on numeric water quality criteria, pollutant concentrations or loads, habitat or geomorphic measures, and/or biological criteria or populations. Targets are also used to determine the existing Water Quality Impairment Status (WQIS) of the streams on the 303(d) list. In most cases, the contractor will be required to write a report, which includes a recommendation and justification for one or more TMDL targets and also compare those targets to the existing conditions to determine WQIS. Communication with the State is crucial while deriving preliminary targets to ensure TMDL consistency across Montana. For consideration in this service area, the contractor should also have experience and be accepted for service categories 3.5.4 and 3.5.12-15.

TMDL Source Assessment/Delineation. The TMDL program (within DEQ) will often need additional data in order to link water quality impairments to their sources, or to allocate sources of pollutants. This may require data compilation, investigative monitoring and statistical analysis within a specified watershed, which can be used for source allocation, or the linkage of water quality impairments to causes and sources of impairment (e.g., sediment or land use practices). Quantitative source assessments may be conducted using field-based monitoring and/or interpretation and analysis of aerial photos, digital images, or GIS coverages depending upon impairment sources and available information. In most cases, contractors will be required to write a report that identifies what the major causes of impairment are and where the major sources of pollutants are located. DEQ will also need to have all pollution/pollutant sources quantified. The quantification of these loads will assist in both source load allocations and the total maximum daily loads. In addition, data collected during source assessments must be entered into an approved database structure or format and linkage to the National Hydrography Dataset (NHD) streams layer may be requested. The department may also request a cost/benefit analysis for implementing BMPs, which can be used for developing TMDL source allocations. Communication with the State is crucial while deriving assessing sources of pollutants to ensure TMDL consistency across Montana. For consideration in this service area, the contractor should also have experience and be accepted for service categories 3.5.4, 3.5.6, and 3.5.12-15.

TMDL Load Allocations. The TMDL program (within DEQ) will often need additional data in order to develop load allocations in conjunction with the source assessment/delineation. Load allocations are the portion of a receiving water's loading capacity that is attributed to existing or future point or non-point sources of pollution or to natural background sources. Load allocations are best estimates of the loading, which can range from reasonably accurate estimates to gross allotments. Allocation can be expressed as a percent reduction that results in a maximum allowable load or as performance-based, which demonstrates how BMPs will be applied and how they will reduce the current loads. Communication with the State is crucial while deriving preliminary load allocations to ensure TMDL consistency across Montana. For consideration in this service area, the contractor should also have experience and be accepted for service categories 3.5.4, 3.5.6-7, and 3.5.12-15.

Total Maximum Daily Loads. The TMDL program (within DEQ) will often need additional data in order to develop Total Maximum Daily Loads (TMDLs). A TMDL is defined as the sum of the wasteload allocations to point sources, load allocations to non-point sources and natural background sources with a margin of safety considering seasonal variation. TMDLS can be expresses in terms of mass per time, toxicity, or other appropriate measures that relate to the State's Water Quality Standards. Communication with the State is crucial while deriving preliminary TMDLs to ensure consistency across Montana. For consideration in this service area, the contractor should also have experience and be accepted for service categories 3.5.4, 3.5.6-8, and 3.5.12-15.

Stakeholder Participation. The TMDL program (within DEQ) will often need additional assistance in order to develop implementation/restoration strategies and monitoring plans. These plans often require public involvement with the local stakeholders. These efforts typically results in developing the measures needed to

achieve full beneficial use support or to monitoring the uncertainties that arise during the TMDL process. Offerors should be experienced in or have staff members with proper credentials to facilitate participation with local stakeholders.

Effectiveness Monitoring. Effectiveness monitoring will be required to evaluate the success of implementing a TMDL plan. Monitoring will often include the collection of some combination of chemical, physical or biological data, which can be used to determine if water quality is improving over time. Most monitoring designs and techniques will be fairly straightforward and may only require visiting a site once per year. In most cases, the contractor will be required to write an annual report, which can be used to determine if water quality is improving.

Geographic Information Systems (GIS) Services. The State, and in particular DEQ, will need assessments that characterize a watershed and identify and quantify all probable sources of pollutants. GIS maps will be required for every waterbody that is assessed. Thematic maps may include, but are not limited to: land ownership, land use, topography, hydrology, soils, precipitation, and/or endangered species distribution. In addition, DEQ may request that GIS applications be used to facilitate the interpretation and analysis of digital images and/or other georeferenced data.

Remote Sensing. The State may consider the use of remote sensing for characterizing a watershed and identifying probable sources of pollutants. For example, indicator metrics may be calculated from an air photo. Metrics may include active channel width, Rosgen level 1 Channel types, % shade, % land use, % land cover, average flood plain width, riparian corridor fragmentation, road density, road crossings, length of irrigation ditch/area, etc. DEQ may request contractors to assist them in developing remote sensing assessment techniques or to employ developed techniques in conducting detailed assessments. All data must be entered into an approved database structure, format, or program and linkage to the National Hydrography Dataset (NHD) streams layer may be requested. If necessary, the Contractor can subcontract in order to acquire the aerial photography products. All subcontractors for this task must be approved by the State prior to initiating a contract.

Water Quality Modeling. The State, and in particular DEQ, uses contracted services in the development and/or application of watershed and water quality modeling tools and techniques in the development of TMDLs. Models may be used to assist in defining TMDL loading allocations, performing existing/potential conditions analysis, watershed scenario analysis, and/or standards attainment analysis. The types of models that may be employed include dynamic watershed loading models (i.e. SWAT, HSPF), water quality fate and transport models (i.e. QUAL2E, QUAL2K), stream temperature and/or shade models (i.e. SSTemp, HeatSource, Shadow), and multi-dimensional lake/reservoir models (i.e. CE QUAL W2). In addition, simpler modeling tools and techniques such as GIS-based Risk Assessment Modeling may be employed or developed based on project needs and resources. The DEQ may also seek assistance in the identification and/or development of simple modeling tools that may be implemented at the desktop that facilitate quick scenario applications. These tools should be able to focus on specific water quality issues such as sediment, nutrients, salinity, etc. and be tailored to the various (eco) regions across the state.

Statistical Analysis. The State may request that large data sets be statistically analyzed for determining trends or for making comparisons. This service area may include data compilation, organization, manipulation and analysis. These analyses may be used to validate environmental targets by comparing reference data to existing data. They may also be used to establish a relationship or linkage between indicators and targets, the estimated loads and how targets link to beneficial use support. Analyses should be appropriate for the type of data being analyzed. In many cases, the contractor will be responsible for determining and providing rationale for appropriate statistical analyses to address pre-formulated environmental hypotheses. Analyses must consider spatial and temporal variations. Analyses may range from providing simple descriptive statistics to reporting multifactor predictive analyses.

Analytical Laboratory Services. The analytical laboratories used by the State, in particular the Montana Department of Environmental Quality (DEQ) Non-Point Source Program, its contractors and grantees must meet minimum qualifications with the services that they provide, the quality system that they operate under and their ability to provide the information in a useable format. The quality system and deliverable format

(STORET) requirements are pass-through requirements of the funding that DEQ receives, in whole or part, from the EPA.

The scope of analytical services required by the NPS program is very broad and can include, but is not limited to: ambient water testing, wastewater analyses, drinking water testing, standing crop/algae/chlorophyll a, sediment characterization, waste characterization, radiochemistry, etc. Some of the more routine types of analytical testing are described in attached tables; however, the scope of analytical services could extend beyond those listed. Multiple vendors will be selected to participate based on their ability to meet the requirements.

DEQ Electronic Data / Information Technical Assistance. The DEQ needs to be able to easily transmit water quality data into the modernized STORET database and make it more accessible to data consumers and the public. To accomplish this, the DEQ seeks to obtain technical products, services, and support, as needed, to migrate datasets to production database system(s) and improve data flow and data quality from a variety of sources into STORET. These tasks may include, but are not limited to solutions in commonly available software products to generate data that conforms to STORET and Oracle database requirements. Specific service areas sought include, but are not limited to: technical support for data conversion, reformatting, and/or normalization of existing historic and transformed datasets; automated data validation routines or procedures designed to support specific data quality objectives; technical solutions for data entry, data capture, and data reporting, maintenance, upgrades or enhancements to existing software interfaces; technical support in the implementation of STORET; acquisition of STORET-compatible data deliverables.

Heavy Equipment Operators. The State and other governmental entities utilize the services of Heavy Equipment Operators to implement environmental projects throughout Montana. Heavy Equipment Operators are encouraged to submit a proposal to allow for easy access for implementation of projects by various governmental entities. Contractors do not have to possess the equipment, but when submitting a proposal, they must incorporate the cost of equipment rental, mobilization and demobilization. The State does anticipate several firms to respond to this service area and we are therefore allowing offerors to designate the parts of the state in which they will be available for work. The attached forms for Heavy Equipment Costs and Location must be completed and incorporated into the proposal.

Revegetation Services. Revegetation Specialists are utilized by the State and other governmental entities to enhance and complete environmental project tasks. The services offered by Revegetation Specialists are planning, designing, implementation along with providing of supplies, materials and equipment necessary to carryout the tasks. If a firm does not have the staff or equipment to implant a project, they must then be able to demonstrate a plan for delivery of product and implementation of a project through subcontracting or professional cooperative agreements.

Communication/Education Services – Information Transfer & TMDL Technical Editing. Communication/education contractor specializing in information transfer would assist in the design, production and distribution of information for target audiences via TV, radio, or print media. These projects often require the conversion of complex water quality data into information the public can understand. Products include pamphlets, brochures, guidebooks, and videos; maintaining a webpage, writing press releases; set up public meetings, give interviews, make presentations at workshops and conferences and organize conferences and set up field trips. Offerors in this field may also specify their ability to provide Technical Editing of Natural Science documents, in particular Total Maximum Daily Load documents. Technical editing can include, but is not limited to proofreading for grammar and mathematical errors, document clarity, and linkage between different sections.

Land Use Planning Services. Land use planning services would include Agricultural Land Use, Watershed Land Use or any other land planning services to benefit the state or other governmental entity. The Land Use Planning efforts can include soil analysis, crop recommendations, and irrigation recommendations to assist in developing a beneficial plan for the land in question.

Preparation of Technical Manuals or Circulars. Regulatory programs require periodic preparation of technical materials to guide either public regulated entities or in-house staff in how to work through a regulatory requirement such as obtaining or writing a permit. These products require technical writing, document preparation, preparation of figures or tables, preparation and use of spreadsheets, research and assimilation of regulations, technical approaches to problem solving and explanation of approaches to prepare applications and/or actual permits.

8.2 Reuse of Documents. When the projects dictate a design or engineered approach, the State agrees that it will not apply the Contractor's designs to any other projects.

9. ENGINEERING ACCESS

All of the firms selected may need to have access to engineering services depending on the nature of the project. The contractor(s) will be expected to use their own best judgment as to whether engineering services are needed for a given project. However, traditional engineering methodologies are not the emphasis of this RFP. It is a violation of State Statute to practice engineering or land surveying without a license.

10. PROJECT SELECTION

10.1 Project Identification. The State will be responsible for identifying projects, contacting landowners and securing necessary permission/cooperation agreements, selecting a contractor, writing grant applications and approving project payments.

10.2 Hazardous Materials. The State will not initiate projects where it is known that hazardous materials are present. If there is an indication of a potential of hazardous materials, then the State will do testing prior to contacting the contractor. However, there is always the possibility of unforeseen problems resulting in the stoppage of a project.

10.3 Meetings. The selected contractor may be required to meet with State personnel at the project site to conduct a site evaluation, discuss project issues and begin the negotiation process on project feasibility, conceptual design and costs for each project.

10.4 Approach Expectations. In the case of restoration activities, the agency will identify the preferred techniques. The determination made by the State may define which contractor(s) are contacted for project initiation. The State is always open to new and innovative approaches that accomplish project goals.

11. SELECTING A CONTRACTOR

The State may select a term contract holder from the Environmental Services contract home page as provided under the state's website address http://www.discoveringmontana.com/doa/gsd/procurement/TermContracts/environservices/Default.asp, taking into consideration such things as the contractor's area of expertise, requirements and location of the project, the contractor's availability and access to resources necessary to efficiently and effectively complete the project, demonstrated excellent past performance on State and public projects, identified subcontractors and total project cost.

General. Ordering agencies shall use the procedures in this section when ordering services priced at hourly rates as established by each Term Contract (TC). The applicable service categories are identified in each TC along with the contractor's price lists.

Request for Quotation (RFQ) procedures. The ordering agency must provide an RFQ, which includes the statement of work and limited, but specific evaluation criteria (*e.g.*, experience and past performance), to TC contractors that offer services that will meet the agency's needs. The RFQ may be posted to the agency's state website to expedite responses.

Statement of Work (SOWs). All SOW's shall include at a minimum a detailed description of the work to be performed, location of work, period of performance, deliverable schedule, applicable performance standards and any special requirements (e.g., security clearances, travel, special knowledge).

(1) Ordering agency may select a contractor from the appropriate service category and directly negotiate a mutually acceptable project based on a sudden and unexpected happening or unforeseen occurrence or condition, which requires immediate action. (Exigency).

(2) Ordering agency may place orders at or below the $5,000 threshold with any TC contractor that can meet the agency's needs. The ordering agency should attempt to distribute orders among all service category contractors.

(3) For orders estimated to exceed $5,000 but less than $25,000.

(i) The ordering agency shall develop a statement of work.
(ii) The ordering agency shall provide the RFQ (including the statement of work and evaluation criteria) to at least three TC contractors that offer services that will meet the agency's needs.
(iii) The ordering agency shall request that contractors submit firm-fixed prices to perform the services identified in the statement of work.

(4) For orders estimated to exceed $25,000. In addition to meeting the requirements of (3) above, the ordering agency shall:

(i) Provide the RFQ (including the statement of work and the evaluation criteria) to a minimum of six service category TC contractors (if category has less than 6, all contractors will be offered an RFQ) with a 50% replacement factor for each subsequent request for quote in the same service category.

Evaluation. The ordering agency shall evaluate all responses received using the evaluation criteria provided in the RFQ to each TC contractor. The ordering agency is responsible for considering the level of effort and the mix of labor proposed to perform a specific task being ordered, and for determining that the total price is reasonable. The agency will place the order with the contractor that represents the best value. After award, ordering agencies will provide timely notification to unsuccessful TC contractors. If an unsuccessful TC contractor requests information on a task order award that was based on factors other than price alone, a brief explanation of the basis for the award decision shall be provided.

Minimum documentation. The ordering agency shall document:
(1) The TC contractors considered, noting the contractor from which the service was purchased.
(2) A description of the service purchased.
(3) The amount paid.
(4) The evaluation methodology used in selecting the contractor to receive the order.
(5) The rationale for making the selection.
(6) Determination of price fair and reasonableness.

Agency project task orders will be utilized to finalize the project. Only written addenda will be used for adjustments of the task orders and must be signed by both parties. All task orders must contain signatures from both parties and appropriate agency legal review as directed in their procurement policy.

The State will monitor contractor selection by using the information provided in the annual TC usage reports.

Contractor's who fail to respond to three RFQ opportunities within a one-year period between July 1st and June 30th may be removed from the qualified list of contractors.

12. CONTRACTOR RESPONSIBILITIES

12.1 Supervision and Implementation. The selected contractor for an individual project will be responsible for the supervision and implementation of the approach and will be responsible for oversight of

work performed by all subcontractors. In most cases the contractor will provide and be responsible for all the necessary equipment, materials, supplies and personnel necessary for proper execution of the work. However, the State reserves the right to hire subcontractors (equipment and/or labor) if it will provide a cost savings to the State. The selected contractor will also be responsible for clean up of the sites if necessary and must have the sites inspected by the State immediately prior to completion.

12.2 On-Site Requirements. When a contractor is contacted by the State to discuss a project, the State and the contractor may visit the job site if deemed necessary by the Project Manager, to become familiar with conditions relating to the project and the labor requirements. The State will provide a detailed scope of work for the project and request the contractor supply the State with a response to project approach, cost, timeframe and any other information deemed necessary by the State to make a selection or complete a contract negotiation.

In the cases of Restoration or On-The-Ground Activities, the contractor shall adequately protect the work, adjacent property, and the public in all phases of the work. They shall be responsible for all damages or injury due to their action or neglect.

The contractor shall maintain access to all phases of the contract pending inspection by the State, the landowner, or their representative. All interim or final products funded by the contract will become the property of the State or Cooperative Purchaser upon payment for said products.

All work rejected as unsatisfactory shall be corrected prior to final inspection and acceptance. The contractor shall respond within seven calendar days after notice of observed defects has been given and shall proceed to immediately remedy these defects. Should the contractor fail to respond to the notice or not remedy the defects, the State may have the work corrected at the expense of the contractor.

12.3 Clean Up (when project tasks require). The contractor shall:

- Keep the premises free from debris and accumulation of waste;
- Clean up any oil or fuel spills;
- Keep machinery clean and free of weeds;
- Remove all construction equipment, tools and excess materials; and
- Perform finishing site preparation to limit the spread of noxious weeds before final payment by the State.

12.4 Applicable Laws. The contractor shall keep informed of, and shall comply with all applicable laws, ordinances, rules, regulations and orders of the City, County, State, Federal or public bodies having jurisdiction affecting any work to be done to provide the services required. The contractor shall provide all necessary safeguards for safety and protection, as set forth by the United States Department of Labor, Occupational Safety and Health Administration.

12.5 Cooperation. The contractor shall work closely with the States analytical consultants, (i.e. environmental laboratories and taxonomists) to develop the desired products.

12.6 Work Acceptance. The contractor is responsible for project oversight as needed. The State may also periodically provide personnel for administrative oversight from the initiation of the contract through project completion. All work will be inspected by the State or designated liaison prior to approval of any contract payments. All work rejected as unsatisfactory shall be corrected prior to final inspection and acceptance. Contractor shall respond within seven calendar days after notice of defects has been given by the State and proceed to immediately remedy all defects.

12.7 Records. The contractor will supply the State with documentation, when requested, of methods used throughout project implementation. Contractor will maintain records for themselves and all subcontractors of supplies, materials, equipment and labor hours expended.

12.8 Communication. Remoteness of project sites may necessitate that the contractor have some form of field communication such as a cellular phone. This communication is necessary to enable the State to

respond to public concerns related to the project, accidents, inspections, or other project issues that require immediate feedback. In addition, the State or Cooperative Purchaser may require scheduled communication at agreed upon intervals. The communication schedule will be dependent upon the project circumstances and requirements of the contracting agency. In the case when a communication schedule is included in the Scope of Work, the schedule will commence when the contractor initiates the project.

12.9 Change of Staffing. Since qualifications of personnel were key in determining which offerors were selected to be on this TC, a written notification of any changes in key personnel must be made to the state agency, prior to entering into negotiations to perform any specific work scope. Contractor shall replace such employee(s) at its own expense with an employee of substantially equal abilities and qualifications without additional cost to the agency. If these staffing changes cause the contractor to no longer meet the qualifications stated herein, that firm will be removed from the service area of this TC. Failure to notify the state agency of staffing changes could result in the contractor being removed from the TC listing and possible suspension from bidding on other state projects.

12.10 Collaboration. The State encourages collaboration between contractors to increase the scope of services offered. In cases where the chosen contractor is not able to provide all services needed for the project, the State will expect the chosen contractor to contact other contractors on this list to negotiate subcontracts for these services before going elsewhere. Exceptions to this strategy will be evaluated on a case-by-case basis.

12.11 Subcontractors, Project Budget and Invoicing. All subcontractors to be used in any project must be approved by the authorized entity initiating the project. Project budgets will be negotiated for each individual project contract. However, all rates, terms and conditions set forth in this term contract will be applied to individual contracts. Subcontractor is defined as anyone other than the prime contractor having substantial direct involvement in a specific project.

The State reserves the right to choose the invoicing method from the following:

- Prime contractor's billing will include the subcontractors charges and payment will be made to the prime, or
- Prime and subcontractors will bill the State separately and the State will pay each directly.

13. CONSIDERATION/PAYMENT

13.1 Payment Schedule. In consideration for the services to be provided, the State shall pay according to the negotiated agreement for each project. Hourly rates and miscellaneous charges as provided in Attachment B shall apply.

13.2 Withholding of Payment. The State may withhold payments to the Contractor if the Contractor has not performed in accordance with this contract. Such withholding cannot be greater than the additional costs to the State caused by the lack of performance.

14. CONTRACTOR WITHHOLDING

Section 15-50-206, MCA, requires the state agency or department for whom a public works construction contract over $5,000 is being performed, to withhold 1 percent of all payments and to transmit such monies to the Department of Revenue.

15. MONTANA PREVAILING WAGE REQUIREMENTS

Unless superseded by federal law, Montana law requires that contractors and subcontractors give preference to the employment of Montana residents for any public works contract in excess of $25,000 for construction or nonconstruction services in accordance with sections 18-2-401 through 18-2-432, MCA, and all administrative rules adopted pursuant thereto. Unless superseded by federal law, at least 50% of the workers of each contractor engaged in construction services must be performed by bona fide Montana residents. The Commissioner of the Montana Department of Labor and Industry has established the resident requirements in

accordance with sections 18-2-403 and 18-2-409, MCA. Any and all questions concerning prevailing wage and Montana resident issues should be directed to the Montana Department of Labor and Industry.

In addition, unless superseded by federal law, all employees working on a public works contract shall be paid prevailing wage rates in accordance with sections 18-2-401 through 18-2-432, MCA, and all administrative rules adopted pursuant thereto. Montana law requires that all public works contracts, as defined in section 18-2-401, MCA, in which the total cost of the contract is in excess of $25,000, contain a provision stating for each job classification the standard prevailing wage rate, including fringe benefits, travel, per diem, and zone pay that the contractors, subcontractors, and employers shall pay during the public works contract.

Furthermore, section 18-2-406, MCA, requires that all contractors, subcontractors, and employers who are performing work or providing services under a public works contract post in a prominent and accessible site on the project staging area or work area, no later than the first day of work and continuing for the entire duration of the contract, a legible statement of all wages and fringe benefits to be paid to the employees in compliance with section 18-2-423, MCA. Section 18-2-423, MCA, requires that employees receiving an hourly wage must be paid on a weekly basis.

Each contractor, subcontractor, and employer must maintain payroll records in a manner readily capable of being certified for submission under section 18-2-423, MCA, for not less than three years after the contractor's, subcontractor's, or employer's completion of work on the public works contract.

The nature of the work performed or services provided under this contract meets the statutory definition of a "public works contract" under section 18-2-401(11)(a), MCA, and falls under the category of Heavy Construction and Nonconstruction services. The booklets containing Montana's 2003 Rates for Nonconstruction Services **and 2004 Rates for Heavy Construction** are attached.

The most current Montana Prevailing Wage Booklet will automatically be incorporated at time of renewal. It is the contractor's responsibility to ensure they are using the most current prevailing wages during performance of its covered work.

16. ACCESS AND RETENTION OF RECORDS

16.1 Access to Records. The Contractor agrees to provide the State, Legislative Auditor or their authorized agents access to any records necessary to determine contract compliance. (Mont. Code Ann. § 18-1-118.)

16.2 Retention Period. The Contractor agrees to create and retain records supporting the environmental services for a period of three years after either the completion date of this contract or the conclusion of any claim, litigation or exception relating to this contract taken by the State of Montana or a third party.

17. ASSIGNMENT, TRANSFER AND SUBCONTRACTING

The Contractor shall not assign, transfer or subcontract any portion of this contract without the express written consent of the State. (Mont. Code Ann. § 18-4-141.) The Contractor shall be responsible to the State for the acts and omissions of all subcontractors or agents and of persons directly or indirectly employed by such subcontractors, and for the acts and omissions of persons employed directly by the Contractor. No contractual relationships exist between any subcontractor and the State.

18. HOLD HARMLESS/INDEMNIFICATION

The Contractor agrees to protect, defend, and save the State, its elected and appointed officials, agents, and employees, while acting within the scope of their duties as such, harmless from and against all claims, demands, causes of action of any kind or character, including the cost of defense thereof, arising in favor of the Contractor's employees or third parties on account of bodily or personal injuries, death, or damage to property arising out of services performed or omissions of services or in any way resulting from the acts or omissions of

the Contractor and/or its agents, employees, representatives, assigns, subcontractors, except the sole negligence of the State, under this agreement.

19. REQUIRED INSURANCE

19.1 General Requirements. The Contractor shall maintain for the duration of the contract, at its cost and expense, insurance against claims for injuries to persons or damages to property, including contractual liability, which may arise from or in connection with the performance of the work by the Contractor, agents, employees, representatives, assigns, or subcontractors. This insurance shall cover such claims as may be caused by any negligent act or omission.

19.2 Primary Insurance. The Contractor's insurance coverage shall be primary insurance as respect to the State, its officers, officials, employees, and volunteers and shall apply separately to each project or location. Any insurance or self-insurance maintained by the State, its officers, officials, employees or volunteers shall be excess of the Contractor's insurance and shall not contribute with it.

19.3 Specific Requirements for Commercial General Liability. The Contractor shall purchase and maintain occurrence coverage with combined single limits for bodily injury, personal injury, and property damage of $1,000,000 per occurrence and $2,000,000 aggregate per year to cover such claims as may be caused by any act, omission, or negligence of the Contractor or its officers, agents, representatives, assigns or subcontractors.

19.4 Additional Insured Status. The State, its officers, officials, employees, and volunteers are to be covered and listed as additional insureds; for liability arising out of activities performed by or on behalf of the Contractor, including the insured's general supervision of the Contractor; products and completed operations; premises owned, leased, occupied, or used.

19.5 Specific Requirements for Automobile Liability. The Contractor shall purchase and maintain coverage with split limits of $500,000 per person (personal injury), $1,000,000 per accident occurrence (personal injury), and $100,000 per accident occurrence (property damage), OR combined single limits of $1,000,000 per occurrence to cover such claims as may be caused by any act, omission, or negligence of the contractor or its officers, agents, representatives, assigns or subcontractors.

19.6 Additional Insured Status. The State, its officers, officials, employees, and volunteers are to be covered and listed as additional insureds for automobiles leased, hired, or borrowed by the Contractor.

19.7 Specific Requirements for Professional Liability. The Contractor shall purchase and maintain occurrence coverage with combined single limits for each wrongful act of $1,000,000 per occurrence and $2,000,000 aggregate per year to cover such claims as may be caused by any act, omission, negligence of the Contractor or its officers, agents, representatives, assigns or subcontractors. Note: if "occurrence" coverage is unavailable or cost prohibitive, the Contractor may provide "claims made" coverage provided the following conditions are met: (1) the commencement date of the contract must not fall outside the effective date of insurance coverage and it will be the retroactive date for insurance coverage in future years; and (2) the claims made policy must have a three year tail for claims that are made (filed) after the cancellation or expiration date of the policy.

19.8 Deductibles and Self-Insured Retentions. Any deductible or self-insured retention must be declared to and approved by the state agency. At the request of the agency either: (1) the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the State, its officers, officials, employees, or volunteers; or (2) at the expense of the Contractor, the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claims administration, and defense expenses.

19.9 Certificate of Insurance/Endorsements. A certificate of insurance from an insurer with a Best's rating of no less than A- indicating compliance with the required coverages, has been received by the State Procurement Bureau, PO Box 200135, Helena MT 59620-0135. The Contractor must notify the State

immediately, of any material change in insurance coverage, such as changes in limits, coverages, change in status of policy, etc. The State reserves the right to require complete copies of insurance policies at all times.

20. COMPLIANCE WITH THE WORKERS' COMPENSATION ACT

Contractors are required to comply with the provisions of the Montana Workers' Compensation Act while performing work for the State of Montana in accordance with sections 39-71-120, 39-71-401, and 39-71-405, MCA. Proof of compliance must be in the form of workers' compensation insurance, an independent contractor's exemption, or documentation of corporate officer status. Neither the contractor nor its employees are employees of the State. This insurance/exemption must be valid for the entire term of the contract. A renewal document must be sent to the State Procurement Bureau, PO Box 200135, Helena MT 59620-0135, upon expiration.

21. COMPLIANCE WITH LAWS

The Contractor must, in performance of work under this contract, fully comply with all applicable federal, state, or local laws, rules and regulations, including the Montana Human Rights Act, the Civil Rights Act of 1964, the Age Discrimination Act of 1975, the Americans with Disabilities Act of 1990, and Section 504 of the Rehabilitation Act of 1973. Any subletting or subcontracting by the Contractor subjects subcontractors to the same provision. In accordance with section 49-3-207, MCA, the Contractor agrees that the hiring of persons to perform the contract will be made on the basis of merit and qualifications and there will be no discrimination based upon race, color, religion, creed, political ideas, sex, age, marital status, physical or mental disability, or national origin by the persons performing the contract.

22. INTELLECTUAL PROPERTY

All patent and other legal rights in or to inventions created in whole or in part under this contract must be available to the State for royalty-free and nonexclusive licensing. Both parties shall have a royalty-free, nonexclusive, and irrevocable right to reproduce, publish or otherwise use and authorize others to use, copyrightable property created under this contract.

23. PATENT AND COPYRIGHT PROTECTION

23.1 Third Party Claim. In the event of any claim by any third party against the State that the products furnished under this contract infringe upon or violate any patent or copyright, the State shall promptly notify Contractor. Contractor shall defend such claim, in the State's name or its own name, as appropriate, but at Contractor's expense. Contractor will indemnify the State against all costs, damages and attorney's fees that accrue as a result of such claim. If the State reasonably concludes that its interests are not being properly protected, or if principles of governmental or public law are involved, it may enter any action.

23.2 Product Subject of Claim. If any product furnished is likely to or does become the subject of a claim of infringement of a patent or copyright, then Contractor may, at its option, procure for the State the right to continue using the alleged infringing product, or modify the product so that it becomes non-infringing. If none of the above options can be accomplished, or if the use of such product by the State shall be prevented by injunction, the State will determine if the Contract has been breached.

24. CONTRACT TERMINATION

24.1 Termination for Cause. The State may, by written notice to the Contractor, terminate this contract in whole or in part at any time the Contractor fails to perform this contract.

24.2 Reduction of Funding. The State, at its sole discretion, may terminate or reduce the scope of this contract if available funding is reduced for any reason. (See Mont. Code Ann. § 18-4-313(3).)

25. STATE PERSONNEL

25.1 State Contract Manager. The State Contract Manager identified below is the State's single point of contact and will perform all contract management pursuant to section 2-17-512, MCA, on behalf of the State. Written notices, requests, complaints or any other issues regarding the contract should be directed to the State Contract Manager.

The State Contract Manager for this contract is:

Robert Oliver, Contracts Officer
Room 165 Mitchell Building
125 North Roberts
PO Box 200135
Helena MT 59620-0135
Telephone #: (406) 444-0110
Fax #: (406) 444-2529
E-mail: roliver@mt.gov

25.2 State Project Manager. Each using State agency or Cooperative Purchaser will identify a Project Manager in the project task order. The Project Manager will manage the day-to-day project activities on behalf of the State/Cooperative Purchaser.

26. CONTRACTOR PERSONNEL

26.1 Change Of Staffing. Since qualifications of personnel was key in determining which offerors were selected to be on this term contract list, a written notification to the State Procurement Bureau of any changes of key personnel must be made within two weeks of the change. These change notifications will be completed upon the departure or hiring of key personnel who are professional employees critical to awarded service areas. If these staffing changes cause the firm to no longer meet the qualifications stated herein, that firm will be removed from the service area of this term contract. Failure to notify the State Procurement Bureau of staffing changes could result in the contractor being removed from the term contract listing and possible suspension from bidding on other State projects.

26.2 Contractor Contract Manager. The Contractor Contract Manager identified below will be the single point of contact to the State Contract Manager and will assume responsibility for the coordination of all contract issues under this contract. The Contractor Contract Manager will meet with the State Contract Manager and/or others necessary to resolve any conflicts, disagreements, or other contract issues.

The Contractor Contract Manager for this contract is:

James A Lovell
1115 N 7th, Suite 1
PO Box 1133
Bozeman MT 59771-1133
Telephone #: (406) 585-9500
Fax #: (406) 582-9142
E-mail: jlovell@confluence.com

26.3 Contractor Project Manager. The Contractor Project Manager identified below will manage the day-to-day project activities on behalf of the Contractor:

The Contractor Project Manager for this contract is:

James A Lovell
1115 N 7th, Suite 1
PO Box 1133
Bozeman MT 59771-1133
Telephone #: (406) 585-9500
Fax #: (406) 582-9142
E-mail: jlovell@confluence.com

27. MEETINGS

The Contractor is required to meet with the State's personnel, or designated representatives, to resolve technical or contractual problems that may occur during the term of the contract or to discuss the progress made by Contractor and the State in the performance of their respective obligations, at no additional cost to the State. Meetings will occur as problems arise and will be coordinated by the State. The Contractor will be given a minimum of three full working days notice of meeting date, time, and location. Face-to-face meetings are desired. However, at the Contractor's option and expense, a conference call meeting may be substituted. Consistent failure to participate in problem resolution meetings two consecutive missed or rescheduled meetings, or to make a good faith effort to resolve problems, may result in termination of the contract.

28. CONTRACTOR PERFORMANCE ASSESSMENTS

The State may do assessments of the Contractor's performance. This contract may be terminated for one or more poor performance assessments. Contractors will have the opportunity to respond to poor performance assessments. The State will make any final decision to terminate this contract based on the assessment and any related information, the Contractor's response and the severity of any negative performance assessment. The Contractor will be notified with a justification of contract termination. Performance assessments may be considered in future solicitations.

29. TRANSITION ASSISTANCE

If this contract is not renewed at the end of this term, or is terminated prior to the completion of a project, or if the work on a project is terminated, for any reason, the Contractor must provide for a reasonable period of time after the expiration or termination of this project or contract, all reasonable transition assistance requested by the State, to allow for the expired or terminated portion of the services to continue without interruption or adverse effect, and to facilitate the orderly transfer of such services to the State or its designees. Such transition assistance will be deemed by the parties to be governed by the terms and conditions of this contract, except for those terms or conditions that do not reasonably apply to such transition assistance. The State shall pay the Contractor for any resources utilized in performing such transition assistance at the most current rates provided by the contract. If there are no established contract rates, then the rate shall be mutually agreed upon. If the State terminates a project or this contract for cause, then the State will be entitled to offset the cost of paying the Contractor for the additional resources the Contractor utilized in providing transition assistance with any damages the State may have otherwise accrued as a result of said termination.

30. CHOICE OF LAW AND VENUE

This contract is governed by the laws of Montana. The parties agree that any litigation concerning this bid, proposal or subsequent contract must be brought in the First Judicial District in and for the County of Lewis and Clark, State of Montana and each party shall pay its own costs and attorney fees. (See Mont. Code Ann. § 18-1-401.)

31. SCOPE, AMENDMENT AND INTERPRETATION

31.1 Contract. This contract consists of 11 numbered pages, any Attachments as required, RFP # SPB05-894P**,** as amended and the Contractor's RFP response as amended. In the case of dispute or ambiguity about the minimum levels of performance by the Contractor the order of precedence of document interpretation is in the same order.

31.2 Entire Agreement. These documents contain the entire agreement of the parties. Any enlargement, alteration or modification requires a written amendment signed by both parties.

32. EXECUTION

The parties through their authorized agents have executed this contract on the dates set out below.

DEPARTMENT OF ADMINISTRATION
STATE PROCUREMENT BUREAU
PO BOX 200135
HELENA MT 59620-0135

BY:_____
Robert Oliver, Contracts Officer

BY:_____
(Signature)

DATE:_____

CONFLUENCE CONSULTING, INC.
211 N GRAND AVE, SUITE E
BOZEMAN MT 59715
FEDERAL ID # 84-1382334

BY:_____
(Name/Title)

BY:_____
(Signature)

DATE:_____

ATTACHMENT A
CONTRACTOR'S RESPONSE

Executive Summary

This proposal is submitted by Confluence Consulting, Inc. in response to the State of Montana's Environmental Services Request for Proposal SPB05-894P. Confluence understands that the State of Montana wishes to secure the services of qualified firms to provide a variety of environmental services throughout Montana for state agencies and other public procurement units. We have carefully reviewed the RFP and have prepared this proposal following the outline and instructions contained therein.

Confluence is submitting this proposal to qualify for the following service areas:

- 3.5.1 Water Quality Monitoring – Fixed Station and Probabilistic Design
- 3.5.2 Water Quality Monitoring – Lakes and Streams
- 3.5.3 Water Quality Monitoring – Reference Sites
- 3.5.4 TMDL Targets
- 3.5.5 TMDL Source Assessment/Delineation
- 3.5.6 TMDL Load Allocations
- 3.5.7 Total Maximum Daily Loads
- 3.5.8 Stakeholder Participation
- 3.5.9 TMDL Effectiveness Monitoring
- 3.5.13 Statistical Analysis
- 3.5.14 Analytical Laboratory Services
- 3.5.22 Land Use Planning Services

In order to offer this range of services to the State, Confluence has partnered with Applied Geomorphology Inc. The combination of these firm's expertise will allow us to most efficiently and effectively complete projects through the Environmental Services term contract. We have worked together on related projects in the past and have established strong working relationships and excellent lines of communication.

Confluence appreciates this opportunity to offer our services. We are confident that our proposal will demonstrate the credentials, qualifications, and expertise needed by DEQ, DNRC, FWP, and other users of the term contract.

Section 4: Offeror Qualifications

4.0 States Right to Investigate and Reject

Confluence Consulting, Inc. understands sub-section 4.0 and will comply.

4.1 Offeror Informational Requirements

To facilitate review of this proposal, Confluence has provided a company profile and experience at the end of this section that pertains to all service areas for which we are applying. Resumes detailing the expertise and experience of each individual on the Confluence team are provided in Appendix B. Critical components of each service area are listed in Section 4.1.3 under each service area.

Service Area 3.5.1 Water Quality Monitoring – Fixed Station and Probabilistic Design

4.1.1 References

Please refer to Table 1: Client References at the end of section 4.1.

4.1.2 Company Profile and Experience

Please refer to the Company Profile description at the end of section 4.1.

4.1.3 Method of Providing Services and Quality Assurance

- Macroinvertebrate Sampling and Data Analysis
- Periphyton Sampling and Data Analysis
- Chlorophyll *a* Sampling and Data Analysis
- Fish Population Sampling and Data Analysis
- Benthic Sediment Sampling and Data Analysis
- Surface Water Sampling and Data Analysis
- Tissue Sample Collection for Analysis of Contaminants
- Remote Sensing
- Geomorphic Assessments
- Quality Assurance/Quality Control
- Development of Data Management Strategy

Fixed station water quality monitoring is an important tool in assessing the current conditions of Montana's waters, water quality trends over time, and the relative roles of human activities and natural disturbance in influencing aquatic systems. Confluence has extensive experience in the biological and sediment sampling techniques that are employed at fixed station sites. This includes sampling of benthic macroinvertebrates using Hess samplers, periphyton sampling, chlorophyll sampling, and collection of relevant physical and chemical data. The Confluence team also includes a professional fisheries biologist with statewide experience in fish sampling and identification. Confluence can assess stream geomorphology and watershed characteristics through remote sensing, field investigations, and geographic information systems (GIS) technology.

Confluence employed this monitoring approach in the Silver Bow Creek watershed where we designed and implemented a study plan to collect biological and geomorphic data. This included collecting and analyzing macroinvertebrate and periphyton samples, as well as temperature, pH, conductivity, and physical parameter data. Data were analyzed and a long-term monitoring plan developed. This project was completed in six months.

Quality assurance and quality control (QAQC) was maintained throughout the project by subjecting all work products to a thorough internal review prior to a draft submission to the client. Work products were submitted for peer review by the technical advisory committee and revised/modified accordingly. Data collection procedures followed standard quality control procedures (i.e. water chemistry sampling and analysis followed EPA standard guidelines).

Although not required for this specific project, a Quality Assurance Plan (QAPP) can be prepared and submitted in accordance with guidance provided by the US EPA. Our QAPP plans detail the problem definition and background, task descriptions, timetables, key personnel, sampling methods, data precision and accuracy, sample handling procedures, quality control requirements for the field and data analysis, and data management.

4.1.4 Staff Qualifications

Please refer to the Staff Qualifications matrix (Table 2) at the end of section 4.1.

Service Area 3.5.2 Water Quality Monitoring – Lakes and Streams

4.1.1 References

Please refer to Table 1: Client References at the end of section 4.1.

4.1.2 Company Profile and Experience

Please refer to the Company Profile description at the end of section 4.1.

4.1.3 Method of Providing Services and Quality Assurance

- Macroinvertebrate Sampling and Data Analysis
- Periphyton Sampling and Data Analysis
- Chlorophyll *a* Sampling and Data Analysis
- Geomorphic Assessments
- Remote Sensing
- Rosgen Channel Classification
- Fish Population Sampling and Data Analysis
- Benthic Sediment Sampling and Data Analysis
- Surface Water Sampling and Data Analysis
- Quality Assurance/Quality Control

- Classification of Riparian and Wetland Community Types
- Database Design and Programming
- EMAP Stream Assessment Protocols
- Rapid Habitat Assessment
- Substrate Composition Sampling and Analysis

Lake and stream monitoring involve an assessment of conditions over a broader spatial scale than fixed station monitoring. The Confluence team has direct experience employing DEQ's stream reach assessment protocols in assessing biological, physical, and chemical integrity of streams. Similarly, Confluence is skilled in a variety of biological habitat assessment protocols including the R1/R4 fish habitat methodology, Rosgen channel typing, proper functioning condition (PFC) assessments of riparian areas, Environmental Monitoring and Assessment Program (EMAP) protocols, and Montana Department of Transportation (MDT) Wetland Assessment Methods. These protocols involve sampling of fish, macroinvertebrates, periphyton, and chlorophyll *a*, in addition to numerous quantitative and qualitative measurements of stream morphology, riparian condition, and human influence. Confluence has designed and completed large-scale field assessments with the objective of verifying water quality impairments and developing watershed plans to address impairments at a watershed scale.

Confluence has conducted water quality monitoring on countless lakes and streams across the western US. For example, Confluence conducted a study of the biological, physical, and chemical integrity of the Powder River and two tributaries, Clear Creek and Piney Creek. The objectives of this investigation were to document conditions in these streams at current levels of coalbed methane development and to develop recommendations to conserve the ecological and agricultural values of these streams. Over the course of two field seasons, Confluence employed sampling methods developed by Environmental Protection Agency which involved sampling fish populations, benthic macroinvertebrates, periphyton, and evaluating physicochemical water quality parameters, stream morphology, riparian structure and composition, and fish habitat components. Supplemental evaluations of basin hydrology using US Geological Survey gaging station data supported conclusions and management recommendations for these streams. In addition, this study involved a literature review of fisheries research, including habitat use and movements of fish in the Powder River and Clear Creek. This project encompassed two field seasons and was completed in under two years.

Quality assurance and quality control (QAQC) was maintained throughout the project by subjecting all work products to a thorough internal review prior to a draft submission to the client. Work products were submitted for peer review by the technical advisory committee and revised/modified accordingly. Data collection procedures followed standard quality control procedures (i.e. water chemistry sampling and analysis followed EPA standard guidelines).

Although not required for this specific project, a Quality Assurance Plan (QAPP) can be prepared and submitted in accordance with guidance provided by the US EPA. Our QAPP plans detail the problem definition and background, task descriptions, timetables, key personnel, sampling methods, data precision and accuracy, sample handling procedures, quality control requirements for the field and data analysis, and data management.

4.1.4 Staff Qualifications
Please refer to the Staff Qualifications matrix (Table 2) at the end of section 4.1.

Service Area 3.5.3 Water Quality Monitoring – Reference Sites

4.1.1 References
Please refer to Table 1: Client References at the end of section 4.1.

4.1.2 Company Profile and Experience
Please refer to the Company Profile description at the end of section 4.1.

4.1.3 Method of Providing Services and Quality Assurance

- Macroinvertebrate Sampling and Data Analysis
- Periphyton Sampling and Data Analysis
- Chlorophyll *a* Sampling and Data Analysis
- Geomorphic Assessments
- Remote Sensing
- Rosgen Channel Classification
- Classification of Riparian and Wetland Community Types
- Fish Population Sampling and Data Analysis
- Benthic Sediment Sampling and Data Analysis
- Surface Water Sampling and Data Analysis
- Collection of Fish and Macroinvertebrates for Analysis of Tissue Contaminants
- Quality Assurance/Quality Control
- Rapid Habitat Assessment
- Substrate Composition Sampling and Analysis

Characterization of biological, chemical, and physical conditions at least impaired sites is an important component of developing reference conditions. These analyses will aid in the development of numeric targets for TMDL development. The Confluence team possesses proficiency in field data collection, study design, and statistical analysis to use reference site data to develop appropriate and defensible numeric targets for TMDL development.

Confluence has used the reference stream approach to design stream and channel restoration projects as well as watershed restoration projects. For example, Confluence conducted a complete physical habitat, biological, and geomorphic assessment of potential reference sites in the Silver Bow Creek watershed. The purpose of this project was the establishment of suitable habitat for fish, macroinvertebrates, and other aquatic life. The design and restoration of suitable natural habitat is most readily accomplished by studying the physical and biological attributes of a reference stream. In this instance, the reference stream needed to be a channel that represented expected conditions for Silver Bow Creek absent the release of hazardous substances. Confluence identified such an area, developed a study plan and collected and analyzed all necessary data. With this information, we established benchmark criteria to be used as targets in developing conceptual designs for reaches of Silver Bow Creek to be restored in the future and provided a means of measuring the performance of these restoration efforts.

Quality assurance and quality control (QAQC) was maintained throughout the project by subjecting all work products to a thorough internal review prior to a draft submission to the client. Work products were submitted for peer review by the technical advisory committee and revised/modified accordingly. Data collection procedures followed standard quality control procedures (i.e. water chemistry sampling and analysis followed EPA standard guidelines).

Although not required for this specific project, a Quality Assurance Plan (QAPP) can be prepared and submitted in accordance with guidance provided by the US EPA. Our QAPP plans detail the problem definition and background, task descriptions, timetables, key personnel, sampling methods, data precision and accuracy, sample handling procedures, quality control requirements for the field and data analysis, and data management.

4.1.4 Staff Qualifications

Please refer to the Staff Qualifications matrix (Table 2) at the end of section 4.1.

Service Area 3.5.4 TMDL Targets

4.1.1 References

Please refer to Table 1: Client References at the end of section 4.1.

4.1.2 Company Profile and Experience

Please refer to the Company Profile description at the end of section 4.1.

4.1.3 Method of Providing Services and Quality Assurance

- TMDL Development and Implementation
- Pollutant Analysis
- BMP Development and Implementation
- Statistical Analysis and Study Design
- Storm Water Management
- Sediment Transport Analysis
- GIS Modeling and Mapping

Development of numeric targets is a one of the one of the most important results of TMDL planning. In the case of many pollutants, particularly toxic substances, the State of Montana has numeric standards for fisheries, aquatic life, and human health. These standards provide numeric targets for TMDL plans. For some of the most common pollutants, such as sediment and nutrients, the State of Montana has established narrative standards that prohibit levels that are “harmful” or exceed “natural” concentrations. Establishing targets for these causes of impairment is more difficult as these pollutants naturally occur on a continuum, which complicates determinations regarding standards violations.

Confluence uses a multidisciplinary approach to developing appropriate, feasible, and defensible numeric targets for TMDL plans. Our ecologists and biologists make recommendations based on the scientific literature regarding levels of pollutants and pollution that are impairing beneficial uses. We have used this approach to develop numeric TMDL targets on a number of watersheds in Montana, such as the Big Hole watershed where we are assisting the Big Hole Watershed Committee with developing TMDL plans. The Big Hole watershed supports that last population of fluvial Arctic grayling in the lower 48 states and an extremely popular recreational fishery. Specific concerns on the main stem include water quantity, riparian condition, and impacts of roads and bridges. Concerns on tributaries include forest practices, roads, and agricultural practices. Phase I of this TMDL project was completed in under one year, the field assessment is scheduled for July 2004.

The role of human activities influencing these conditions is determined through risk assessment models and input from various team members including a fluvial geomorphologist, statistician, geologist, ground water hydrologist, and riparian ecologist depending on the probable cause of impairment. In all cases, we consider links between geomorphic, vegetative, and natural processes in developing numeric targets. As a result, numeric targets may be established for a number of features including allowable pollutions concentrations or loads, geomorphic or habitat measures, substrate composition, riparian condition, and biological criteria.
A QAPP/SAPP is being developed as part of this project. The QAPP/SAPP details the data collection strategy, stream monitoring reaches, data collection parameters, and quality control procedures. Confluence is experienced and proficient in developing these plans.

4.1.4 Staff Qualifications

Please refer to the Staff Qualifications matrix (Table 2) at the end of section 4.1.

Service Area 3.5.5 TMDL Source Assessment/Delineation

4.1.1 References

Please refer to Table 1: Client References at the end of section 4.1.

4.1.2 Company Profile and Experience

Please refer to the Company Profile description at the end of section 4.1.

4.1.3 Method of Providing Services and Quality Assurance

- Macroinvertebrate Sampling and Data Analysis
- Periphyton Sampling and Data Analysis
- Chlorophyll a Sampling and Analysis
- Geomorphic Assessments
- Remote Sensing
- Rosgen Channel Classification
- Classification of Riparian and Wetland Community Types
- Fish Population Sampling and Data Analysis
- Benthic Sediment Sampling and Data Analysis
- Surface Water Sampling and Data Analysis
- Bank Surveys
- Quality Assurance/Quality Control
- Rapid Habitat Assessment

- Pollutant Modeling
- Substrate Composition Sampling and Analysis
- GIS Modeling

Identifying sources of pollutants and impairment is a challenge in waters impaired by nonpoint sources. The interdisciplinary skills of Confluence staff members employ a combination of field assessments, aerial image analysis, and watershed modeling to identify sources of impairment and estimate contributions from various sources. We have experience identifying sources of impairment from a wide range of land use activities including agriculture, urban development, silviculture, and mining.

Confluence has used this approach and developed detailed source assessments and delineation on the Blackfoot Headwaters and is currently in the midst of this process on the Big Hole and Upper Shields River. Confluence staff are skilled in data compilation, field assessments, and statistical data analysis. This is a complex process which requires six months of time to complete (including developing and implementing a field data collection plan). This time period varies greatly depending on the extent of available data, the number of impaired streams, and the number of impairments.

4.1.4 Staff Qualifications
Please refer to the Staff Qualifications matrix (Table 2) at the end of section 4.1.

Service Area 3.5.6 TMDL Load Allocations

4.1.1 References
Please refer to Table 1: Client References at the end of section 4.1.

4.1.2 Company Profile and Experience
Please refer to the Company Profile description at the end of section 4.1.

4.1.3 Method of Providing Services and Quality Assurance

- Macroinvertebrate Sampling and Data Analysis
- Periphyton Sampling and Data Analysis
- Chlorophyll a Sampling and Analysis
- Geomorphic Assessments
- Remote Sensing
- Rosgen Channel Classification
- Classification of Riparian and Wetland Community Types
- Pollutant Modeling
- Fish Population Sampling and Data Analysis
- Benthic Sediment Sampling and Data Analysis
- Surface Water Sampling and Data Analysis
- Bank Surveys
- Quality Assurance/Quality Control
- Rapid Habitat Assessment
- Substrate Composition Sampling and Analysis
- GIS Modeling

Once pollutant and impairment sources have been identified, load allocations are then developed. These allocations can best be described as the portion of a receiving water's loading capacity, which can be attributed to existing or future point or non-point sources of pollution or natural background sources.

In our experience, we have found the key to developing load allocations is to work in very close partnership with DEQ monitoring and TMDL staff, in addition to local agency biologists. Confluence is currently in the midst of this process on the Big Hole and Upper Shields River.

4.1.4 Staff Qualifications
Please refer to the Staff Qualifications matrix (Table 2) at the end of section 4.1.

Service Area 3.5.7 Total Maximum Daily Loads

4.1.1 References
Please refer to Table 1: Client References at the end of section 4.1.

4.1.2 Company Profile and Experience
Please refer to the Company Profile description at the end of section 4.1.

4.1.3 Method of Providing Services and Quality Assurance

- TMDL Targets
- TMDL Load Allocations
- TMDL Source Assessment/Delineation

Once TMDL targets, source assessments, and load allocations have been completed, Confluence develops a TMDL plan, in close partnership with DEQ and stakeholder partners. Confluence provides the results of these analyses in a report with verbiage that can be used in water quality restoration plans (WQRPs) and TMDL submittals. The Confluence team recently completed Phase 1, 2, and 3 of a TMDL and water quality restoration plan for the Blackfoot River watershed. This is a large watershed with many contentious land management issues and the project included multiple aspects. These aspects included compiling and synthesizing existing data and information on the drainage, identifying data gaps, developing and implementing a strategy to collect additional necessary information, making determinations regarding the impairment status of the listed streams, and prioritizing restoration efforts. Data included riparian and floodplain conditions, upland conditions, the extent of human disturbance, eroding banks, historic and current channel geomorphology, instream habitat conditions, water quality, and fisheries surveys. In order to assimilate the large amount of available spatial information, Geographic Information Systems (GIS) technology was used extensively throughout the project. As part of the data compilation phase, all digital information was compiled within an ArcView compatible GIS. To gain acceptance and confidence in our results, public meetings were scheduled throughout the course of the project with a multidisciplinary technical advisory group consisting of representatives from public agencies and stakeholder groups. To identify sources sediment of impairments and determine sediment load allocations, a Sediment Source and Delivery Model (SSDM) was constructed within the GIS system. The SSDM model was initially used to predict which areas within the larger basin had a high probability to produce sediment from natural and man-made sources. Subsequent modifications to the model facilitated its use as a load allocation tool. The model drew upon numerous GIS data and was used as a decision-making tool to determine where restoration measures should be targeted to meet project goals for reducing impairment from sediment.

4.1.4 Staff Qualifications
Please refer to the Staff Qualifications matrix (Table 2) at the end of section 4.1.

Service Area 3.5.8 Stakeholder Participation

4.1.1 References
Please refer to Table 1: Client References at the end of section 4.1.

4.1.2 Company Profile and Experience
Please refer to the Company Profile description at the end of section 4.1.

4.1.3 Method of Providing Services and Quality Assurance

- Stakeholder Coordination
- Facilitation
- Natural Resource Understanding
- Public Involvement
- Public Speaking

Stakeholder participation is critical in the watershed planning process to ensure local buy-in with the TMDL process. Without stakeholder participation it is difficult to effectively implement restoration strategies and monitoring plans. Confluence staff is experienced in working with stakeholders on a watershed basis. For example in preparing an assessment of the Silver Bow Creek Watershed to develop a comprehensive restoration plan Confluence worked closely with stakeholder to identify existing conditions in the watershed;

identify potential opportunities to restore, rehabilitate, replace, or acquire equivalent natural resources through purchase or conservation easements; obtain public feedback and participation in the planning process; and develop a prioritization scheme to address restoration needs based on watershed condition and goals and objective established for fisheries, water quality, and recreation.

4.1.4 Staff Qualifications
Please refer to the Staff Qualifications matrix (Table 2) at the end of section 4.1.

Service Area 3.5.9 TMDL Effectiveness Monitoring

4.1.1 References
Please refer to Table 1: Client References at the end of section 4.1.

4.1.2 Company Profile and Experience
Please refer to the Company Profile description at the end of section 4.1.

4.1.3 Method of Providing Services and Quality Assurance

- Macroinvertebrate Sampling and Data Analysis
- Periphyton Sampling and Data Analysis
- Chlorophyll a Sampling and Data Analysis
- Geomorphic Assessments
- Remote Sensing
- Rosgen Channel Classification
- Classification of Riparian and Wetland Community Types
- Database Design and Programming
- Fish Population Sampling and Data Analysis
- Benthic Sediment Sampling and Data Analysis
- Surface Water Sampling and Data Analysis
- Quality Assurance/Quality Control
- Rapid Habitat Assessment
- Substrate Composition Sampling and Analysis
- EMAP Stream Assessment Protocols

Effectiveness monitoring is can help in evaluating the outcome of TMDL plans and can be used to provide useful information to adjust those plans as needed to meet TMDL goals. Confluence has experience in developing and implementing cost effective monitoring plans that address probable causes and sources of impairment. Confluence can assist DEQ in development of these monitoring plans or implement already developed plans. Confluence will provide data in an approved database format and produce annual or other reports as required.

4.1.4 Staff Qualifications
Please refer to the Staff Qualifications matrix (Table 2) at the end of section 4.1.

Service Area 3.5.13 Statistical Analysis

4.1.1 References
Please refer to Table 1: Client References at the end of section 4.1.

4.1.2 Company Profile and Experience
Please refer to the Company Profile description at the end of section 4.1.

4.1.3 Method of Providing Services and Quality Assurance

- Development of statistically appropriate study designs
- Multivariate analysis
- Trend analysis
- Regression analysis
- Nonparametric methods
- Exploratory data analysis

Statistical analysis is a key component for deriving meaningful conclusions from environmental data. Moreover, developing an appropriate study design before environmental data are collected will increase the likelihood of success as well as be more cost-effective. Our experience with TMDLs will enable the Confluence team to

develop efficient study designs and provide comprehensive data analysis that includes statistical tests of hypotheses. These services will provide detailed information and statistical evidence that will help DEQ in the development of credible and defensible TMDL targets.

4.1.4 Staff Qualifications
Please refer to the Staff Qualifications matrix (Table 2) at the end of section 4.1.

Service Area 3.5.14 Analytical Laboratory Services

4.1.1 References
Please refer to Table 1: Client References at the end of section 4.1.

4.1.2 Company Profile and Experience
Please refer to the Company Profile description at the end of section 4.1.

4.1.3 Method of Providing Services and Quality Assurance
The HKM Laboratory provides services under a quality assurance program that is certified by the State of Montana for drinking water analyses. We service a broad spectrum of clients, ranging from private drinking water wells to extensive Superfund sampling and remediation projects. Client data reports are generated using 1) a Laboratory Information Management System (LIMS) constructed by MSC, Inc. and 2) Microsoft Excel applications. The LIMS is a Microsoft Access-based database system that is also used for sample tracking and workload management.

4.1.4 Staff Qualifications
Resumes for key HKM Laboratory personnel are provided in Appendix A. Resumes for other employees can be provided upon request. Gary Wyss, the HKM Laboratory Manager, will act as lead for the analytical services category.

Service Area 3.5.22 Land Use Planning Services

4.1.1 References
Please refer to Table 1: Client References at the end of section 4.1.

4.1.2 Company Profile and Experience
Please refer to the Company Profile description at the end of section 4.1.

4.1.3 Method of Providing Services and Quality Assurance
Confluence has been providing land use planning services since its inception in 1996. For example, Confluence, in association with the Shoshone-Paiute Tribe, performed an assessment of the East Fork Owyhee River (from the Mountain City stream gage station near the southeastern boundary of the reservation to approximately 2.4 miles downstream) during mid-June 2003. This assessment formed the basis for developing conceptual bank stabilization designs and associated cost estimates. The project team evaluated form, function, and trend of the East Fork Owyhee River in the project area, both extensively and intensively. An extensive, reconnaissance level assessment characterized the project reach with respect to geomorphic stability, riparian condition, and erosion patterns. Sites selected for more intensive investigation of geomorphic and riparian conditions were those with the potential to demonstrate options for the design and implementation of a range of restoration approaches. Existing hydrology and water quality data were also incorporated into our analysis.

4.1.4 Staff Qualifications
Please refer to the Staff Qualifications matrix (Table 2) at the end of section 4.1.

References
The following table (Table 1) provides references for each applicable service area.

Company Profile and Experience

Confluence Consulting, Inc. will serve as the prime contractor and will manage all contracts issued through the Wetlands Legacy Term Contract. Confluence, based in Bozeman, is a growing firm, currently comprised of six natural resource professionals and two support staff. Our staff is comprised of experts in fisheries biology, wetland science, stream and river enhancements, fluvial geomorphology, stream and riparian ecology, land use planning, project management, and biological and water quality monitoring. Confluence has been providing services in the study, design, restoration, and management of aquatic resources since 1996 and will be supported on this contract by Applied Geomorphology for fluvial geomorphology expertise and Carto-Logic Inc for any GIS needs. The company profiles and service area descriptions below provide more detail on the services we provide

Confluence's approach to successfully completing projects is to work in close partnership with the client to ensure that project goals are met on time and within budget. To do this, we propose a strategic relationship between Confluence and the State that includes effective communication between parties, timely contract and budget administration, and close adherence to schedules throughout the project. As a small corporation, Confluence works well as a member of larger project teams and welcomes opportunities to interface with diverse interests and disciplines.

Confluence Consulting, Inc.

Confluence offers a full range of ***aquatic planning and assessment*** services to assist in managing and restoring watersheds. Confluence applies a multidisciplinary approach to problem solving that integrates the fields of wetland ecology, riparian ecology, fluvial geomorphology, hydrology, engineering, fisheries biology, and botany. As part of these services, we develop and implement monitoring studies, geomorphic studies, riparian condition surveys, land use and human influence evaluations, restoration strategies, and best management practice development and recommendations. In addition, we provide data collection, analysis, and management services to evaluate the health of aquatic systems by examining fish communities, macroinvertebrates, periphyton, riparian vegetation, and stream channel conditions.

Confluence also significant expertise in designing and implementing effective ***stream restoration*** practices using natural channel design and bioengineering methods. We approach stream restoration from a watershed perspective to ensure that our designs balance habitat with stability and aesthetics to produce channels that look and function as though they were created by nature. Confluence provides ***wetland*** services that assure project compliance with section 404 of the federal Clean Water Act (CWA) for jurisdictional wetlands and waters throughout the western United States. As part of the overall CWA 404 permitting process, Confluence provides complete services for the establishment, creation, and long-term monitoring of mitigation wetlands. Finally, Confluence provides ***permitting*** services to comply with Montana's stream, lake, and wetland permitting requirements, as well as Storm Water Pollution Prevention Plan (SWPPP) development and National Pollution Discharge Elimination System (NPDES) requirements. Our experience ensures that our clients meet the complex sets of regulations and permitting requirements of federal, state and local agencies.

Applied Geomorphology Inc.

Applied Geomorphology, Inc. (AGI) is a women-owned business based in Bozeman, Montana that specializes in geomorphic assessment and development of process-based strategies for stream and watershed restoration. AGI specializes in performing geomorphic assessments on a watershed scale to determine channel response to human impacts, develop sediment TMDLs, and generate restoration strategies and project prioritizations. Karin Boyd, P.G., is the company principal and a registered professional geologist (Wyoming No. PG-594), with 14 years experience in applied fluvial geomorphology providing geomorphic assessments of impacted river systems, and developing geomorphic approaches to channel restoration. Her primary expertise is the quantitative geomorphic analysis of river systems, and incorporation of results into resource management strategies. Ms. Boyd has performed geomorphic inventories and evaluations on numerous destabilized river systems throughout the country. She has performed geomorphic assessments on a watershed scale, using both channel classification and geomorphic evolution assessments to identify impaired channel segments and develop restoration strategies. AGI's primary focus is the interdisciplinary assessment of Montana watersheds, and the development of feasible strategies for long-term resource management. The following sections describe the specific qualifications and services offered by the Confluence team.

HKM Analytical Laboratory Inc.

Established in 1990, the HKM Engineering Inc. Analytical Laboratory (HKM Lab) is a certified, full-service commercial laboratory in Butte, Montana that performs analyses for a variety of public and private clients. Our location adjacent to the Silver Bow Creek / Butte Area NPL site provides the HKM Lab familiarity with local Superfund activities as well as a hiring pool that includes graduates of Montana Tech of the University of Montana, ranked as one of the top five science and engineering colleges in the United States. Because of our location in Butte, state of the art instrumentation, rigorous quality assurance program and willingness to provide services tailored to the individual needs of our clients, much of our work involves analyses related to the evaluation and remediation of Superfund sites. Our expertise encompasses water, biological, solid and hazardous waste analyses. Pursuant to the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Safe Drinking Water Act (SDWA), the Toxic Substances Control Act (TSCA), the Clean Water Act (CWA), and the National Pollutant Discharge Elimination System (NPDES), the HKM Lab provides services to meet virtually any state or federal regulatory requirement. The HKM Lab is a branch of HKM Engineering Inc. (HKM), a Billings, Montana-based environmental and civil engineering consulting firm with 5 locations in Montana and Wyoming, including materials laboratories in Bozeman and Billings, Montana. The HKM Lab features 6800 ft^2 of laboratory space designed to minimize cross-contamination of samples and maximize the efficiency of analytical operations. Specialized laboratory areas include sample receiving, storage, preparation, and analysis, including a separate facility for organic and biological drinking water analysis.

The HKM Laboratory has experience in many analytical areas, ranging from compliance drinking water analyses to evaluation and quantification of remediation process waste streams. Much of our work is related to samples collected within the Silver Bow Creek/Butte Area (SBC) Superfund site, one of the largest in the U.S. As a primary analytical laboratory for several firms doing work within this site, the HKM Laboratory has developed expertise in analyzing many types of mining-related samples, including groundwater, surface water, soils, sediments, biological tissues, and storm water. We also perform analyses for several mining-related remediation projects both within and outside Montana, as well as other specialized analytical work. These projects often entail analysis of unusual, often difficult sample matrices, and require the development of specialized methods to assure accurate, defensible results.

Staff Qualifications

This section details the staff qualifications of those individuals who will be involved in projects through the Environmental Services Term Contract. Professional rates are provided in Section 5: Cost Proposal. Qualifications for key personnel comprising the Confluence team are listed in the matrix in Table 2. Table 2 also outlines which individuals will be working within each service area and their respective role. Resumes which further detail each staff member's expertise, education, special training, and project experience are provided in Appendix B: Project Team Resumes.

Confluence provides engineering intern (EI) staff to complete stream/wetland design drawings and basic engineering services. For projects that require a licensed engineer, Confluence regularly teams with a number of engineering consulting firms including, HKM Engineering, Allied Engineering, and TD&H Engineering. Confluence has an established working relationship with each of these firms and can call upon their expertise for any project through the Environmental Services Term Contract.

Table 2. Staff Qualifications. **PM** = Project Manager, **LT** = Lead Technician, **TS** = Technical Staff, numbers in parenthesis denote years of experience.

	Credentials			Expertise									Service Area Role											
Personnel	Degree	Years Experience	Professional Registration	Water Quality	Fisheries Biology	Fluvial Geomorphology	Surface Water Hydrology	Riparian & Wetland Ecology	Geology/ Soils Science	Watershed Planning	Data Analysis & Statistics	Coordination/ Facilitation	Water Quality Monitoring – Fixed Station/Probabilistic Design	Water Quality Monitoring - Lakes and Streams	Water Quality Monitoring - Reference Sites	TMDL Targets	TMDL Source Assessment/ Delineation	TMDL Load Allocations	Total Maximum Daily Loads	Stakeholder Participation	TMDL Effectiveness Monitoring	Statistical Analysis	Analytical Laboratory Services	Watershed Coordination	Land Use Planning Services
Jim Lovell	M.S.	20				X	X			X	X	X	TS (12)	TS (12)	TS (12)	PM/ TS (6)	PM/ TS (6)	PM/ TS (6)	PM/ TS (6)	TS (5)	PM/ TS (6)	TS (15)			PM (20)
Carol Endicott	M.S.	14		X	X					X	X		PM LT (10)	PM/ LT (10)	PM/ LT (10)	PM/ LT (10)	PM/ LT (10)	PM/ LT (10)	PM/ LT (10)	TS (7)	PM/ LT (10)	PM/ LT (10)		TS (7)	TS (14)
Karin Boyd	M.S.	15	P.G.			X	X			X	X		TS (10)	TS (10)	TS (10)	TS (6)	TS (6)	TS (6)	TS (6)		TS (6)	TS (15)			TS (15)
Ron LeCain	M.S.	7						X	X					TS (6)	TS (6)	TS (2)	TS (2)	TS (2)	TS (2)		TS (2)				TS (7)
Myla McGowan	M.S.	8						X		X	X	X	TS (5)	TS (5)	TS (5)	TS (6)	TS (6)	TS (6)	TS (6)	PM/ LT (7)	TS (6)	TS (5)		PM (7)	TS (8)
Michael Sanctuary	M.S.	5			X					X	X			TS (5)	TS (5)	PM/ TS (3)	PM/ TS (3)	PM/ TS (3)	PM/ TS (3)		PM/ TS (3)	TS (5)			TS (5)
Matthew Klara	M.S.	3	E.I.				X				X		TS (2)	TS (2)	TS (2)							TS (3)			TS (2)
Gary Wyss	M.S.	13																					LT (13)		
Mindy McCarthy	B.S.	10																					TS (10)		
Steven Heck	B.S.	27																					PM (27)		

4.2 Offeror Qualification Requirements – Specific Service Categories

4.2.1 Water Quality Monitoring – Fixed Station and Probabilistic Design
Refer to Appendix B for the qualifications of each staff member on the Confluence Team. Each team member has a natural resource background.

4.2.2 Water Quality Monitoring – Lakes and Streams
Refer to Appendix B for the qualifications of each staff member on the Confluence Team. Each team member has a natural resource background.

4.2.3 Water Quality Monitoring – Reference Sites
Refer to Appendix B for the qualifications of each staff member on the Confluence Team. Each team member has a natural resource background.

4.2.4 TMDL Targets
Refer to Appendix B for the qualifications of each staff member on the Confluence Team. Each team member has a natural resource background.

4.2.5 TMDL Source Assessment/Delineation
Refer to Appendix B for the qualifications of each staff member on the Confluence Team. Each team member has a natural resource background.

4.2.6 TMDL Load Allocations
Refer to Appendix B for the qualifications of each staff member on the Confluence Team. Each team member has a natural resource background.

4.2.7 Total Maximum Daily Loads
Refer to Appendix B for the qualifications of each staff member on the Confluence Team. Each team member has a natural resource background.

4.2.8 Stakeholder Participation
Refer to Appendix B for the qualifications of each staff member on the Confluence Team. Each team member has a natural resource background.

4.2.9 TMDL Effectiveness Monitoring
Refer to Appendix B for the qualifications of each staff member on the Confluence Team. Each team member has a natural resource background.

4.2.13 Statistical Analysis
Refer to Appendix B for the qualifications of each staff member on the Confluence Team. Each team member has a natural resource background.

4.2.14 Analytical Laboratory Services

General
Established in 1990, the HKM Engineering Inc. Analytical Laboratory (HKM Lab) is a certified, full-service commercial laboratory in Butte, Montana that performs analyses for a variety of public and private clients. Our location adjacent to the Silver Bow Creek / Butte Area NPL site provides the HKM Lab familiarity with local Superfund activities as well as a hiring pool that includes graduates of Montana Tech of the University of Montana, ranked as one of the top five science and engineering colleges in the United States. Because of our location in Butte, state of the art instrumentation, rigorous quality assurance program and willingness to provide services tailored to the individual needs of our clients, much of our work involves analyses related to the evaluation and remediation of Superfund sites. Our expertise encompasses water, biological, solid and hazardous waste analyses. Pursuant to the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Safe Drinking Water Act (SDWA), the Toxic Substances Control Act (TSCA), the Clean Water Act (CWA), and the National

Pollutant Discharge Elimination System (NPDES), the HKM Lab provides services to meet virtually any state or federal regulatory requirement.

The HKM Lab is a branch of HKM Engineering Inc. (HKM), a Billings, Montana-based environmental and civil engineering consulting firm with 5 locations in Montana and Wyoming, including materials laboratories in Bozeman and Billings, Montana. The HKM Lab features 6800 ft^2 of laboratory space designed to minimize cross-contamination of samples and maximize the efficiency of analytical operations. Specialized laboratory areas include sample receiving, storage, preparation, and analysis, including a separate facility for organic and biological drinking water analysis.

Related Experience
Please refer to the narratives in the reference table of this proposal for descriptions of related experience.

Capacity
The HKM Laboratory is confident in our ability to process and analyze sample submittals in a timely and accurate manner, as discussed in the following paragraphs.

Laboratory Capacity
The HKM Laboratory analyzes in the neighborhood of $1.0M worth of analytical samples in a typical calendar year. We have approximately 20 fulltime employees plus several part-time employees, and preparation facilities and instrumentation capable of processing large numbers of samples within a short time frame. Major instrumentation includes the following:

- An ICP-MS, ICP-AES, and three GFAAS units used for metals analyses;
- CVAA instrument for mercury analyses;
- GC-MS for organic analyses;
- Auto Analyzer and Ion Chromatograph for analyses of sulfate, chloride, bromide, nitrate, nitrite and fluoride; and
- Numerous apparatus for other general chemistry analyses.

At least two people on staff are trained in the operation of each instrument, and in performing each analysis.

Turnaround Time Goals
The HKM Laboratory's normal turnaround time is 4 weeks from date of receipt for metals samples, and the lesser of 4 weeks or the applicable holding time limit for other analytical parameters. Depending on clients' needs, shorter turnaround times are frequently necessary; in fact, approximately 30 % of our samples are analyzed on a quick-turnaround basis. A significant proportion of these require turnarounds as short as 24-48 hours (usually associated with technology demonstrations or environmental upset conditions). We are accustomed to receiving samples both in large lots (up to 20 samples per batch) and piecemeal; occasionally 100 or more samples are received in a single delivery. The HKM Laboratory continually works with clients to coordinate receipt and timely analysis of samples, and can make special arrangements for delivery of sampling supplies - including sample preservatives - as necessary. The HKM Laboratory also provides field sampling services for several clients using EPA protocols, giving us a unique understanding of issues faced by data collection personnel, and their impacts on analytical requirements.

Samples are tracked from the time of their arrival until results are reported to ensure that clients' turnaround time requirements are achieved, and that method-specific sample holding times are not exceeded. This is critical since holding times for several general chemistry parameters range between 48 hours and 7 days.

Cost
The HKM Laboratory specializes in metals and inorganic analysis for surface/groundwater monitoring and Superfund related investigations. The pricing for analytical services provided by the HKM Laboratory is listed in Appendix B, tables B1 through B4.

Quality System

Laboratory Quality Assurance Program (LQAP)
The HKM Laboratory Quality Assurance (QA) Manual describes how the management and technical

requirements of sample analysis and reporting are addressed. A copy of the current QA Manual is included as Attachment 1 to this proposal.

Certification
The HKM Laboratory maintains drinking water certification under a program administered by the Montana Department of Public Health & Human Services (DPHHS). Our current certification is valid through April 30, 2006; a copy is included as Appendix C. Additionally, the laboratory routinely provides analyses compliant with protocols for the EPA Contract Laboratory Program (CLP) for Superfund activities.

The HKM Laboratory is regularly audited by the Montana DPHHS, and also receives frequent audits from our clients to document compliance with project-specific quality requirements.

Performance Evaluation Studies
As a condition of our DPHHS certification, the HKM Laboratory analyzes Water Supply (WS) performance evaluation (PE) samples twice per year. Results of the two most recent PE sample results are included in Appendix D.

Any unsatisfactory PE results are followed by an internal review, and implementation of appropriate corrective actions. To maintain certification for a given analytical parameter, at least one satisfactory PE result must be obtained for each calendar year.

Reporting of Results

Hardcopy Reports
The typical hard copy report package from the HKM Laboratory includes the following elements at a minimum:

- Cover page;
- Sample summary and QA/QC summary;
- Sample integrity checklist; and
- Copy of the chain-of-custody (COC) submitted with the samples.

Cover Page
The cover page is pre-printed with the HKM Laboratory logo and address, phone and fax numbers, and the HKM Internet URL. The report date, client name, company/project, address, and test report identifier (BIF) are included in the header information. The sample receipt date is included in the letter to the client and BIF. The report cover sheet is signed by the laboratory manager or his designated representative when the report is approved for release.

Sample Summary and QA/QC Summary
Specifics of our reporting are discussed in the following paragraphs.

Sample Summary The LIMS-generated analytical reports (Example 2) include the HKM logo and report date in the header information. The sub-header presents the client name, client sample description, date and time of collection, unique laboratory identification number and BIF. The body of the report sheet presents the analysis test and result with the appropriate units. Non-detect results are indicated by a less than sign with the respective analyte MDL. The non-detect threshold is corrected for dilution and/or the moisture content in solids when appropriate. The footer includes a review line, which must be initialed by a qualified staff member prior to data release.

The Excel report format (Examples 1 and 3) varies considerably, dependent upon client specifications. Characteristically, the report header has the HKM logo with the client, project name and batch number. Elements of the report include the unique laboratory assigned identifier, client identifier, date and time sampled, analyte headers with units and a line (row) with the analyte detection limit and regulatory detection limit, if appropriate. The analyte results are shown in the body with the applicable concentration qualifier. Non-detects are presented with the IDL, adjusted, followed by “U” in the concentration qualifier column. This format is derived from CLP reporting conventions. The footer has the HKM Laboratory name and review line, which must be initialed by a qualified staff member prior to release.

Other Excel formats have been developed to contain any desired information, since all raw data, bench sheets and batch information are accumulated in client-dedicated files for ease of access. Therefore, sample preparation and analysis data can be added as needed.

Results are reported to consistent significant figures down to the MDL. The rounding convention is to round to two significant figures for results less than 10 and to three significant figures for results equal to or greater than 10.

Current report formats do not contain numerical method references or page references to identify missing pages, as these have not been requested by clients to date. Such information can be readily incorporated to satisfy MDEQ requirements. Data report completeness is verified by comparing the report with the COC originally submitted by the client.

QA/QC Summary Quality assurance (QA) results are linked to the original samples by the HKM Laboratory batch number. At a minimum, the QA summary includes results for the batch method blank (PB), the laboratory control sample, laboratory duplicate and laboratory spike sample. Currently, HKM does not routinely perform matrix spike duplicates, except for Method 524.2 volatile organic analyses. The QA/QC summary includes LCS and spike true values, and percent recovery calculations. The relative percent difference (RPD) calculation is reported for precision on the laboratory duplicate. Spike calculations are presented unless the sample concentration is greater than four times the indigenous sample concentration, in which case the recovery criteria do not apply. The recovery criteria are 80-120 % for LCS, and 75-125 % for spikes; these criteria are not currently shown on the HKM Laboratory QA summaries. Blank criteria vary depending on the analytical method(s) used, and on the project-specific requirements.

Sample Integrity Checklist
The sample integrity checklist documents the condition and status (i.e.-proper preservation, sample volume, temperature, COC, etc.) of the samples upon delivery to the laboratory. A copy is included with client data reports.

Chain of Custody
A copy of the signed chain-of-custody is included in the client data report (if submitted with the samples). Original reports are included for subcontracted analytical work, and a copy is retained for the HKM Laboratory records.

Data Retention Policy
All raw data is maintained for five years at the HKM Laboratory. Drinking water analysis data is retained for ten years. Different periods of retention can be accommodated depending on client requirements.

Electronic Data Deliverables (EDD)
The HKM Laboratory routinely provides analytical results electronically in Microsoft Excel format. Typically, inorganic general chemistry results are queried from the LIMS and converted into Excel, while metals results are originated in Excel. The general chemistry and metals results are combined, and then e-mailed to the client. The HKM Laboratory has not had the opportunity to submit results by the STORET/STORET Import Module (SIM)-compatible format. The HKM Laboratory records all the necessary information specified for the SIM EDD. Data collected on behalf of MDEQ will be collated into an Excel format that satisfies SIM EDD format and content requirements. The HKM Laboratory is currently in the process of upgrading the existing LIMS system. It is anticipated that the newly acquired LIMS will be configured with the records necessary for simple conversion to several formats, including the SIM EDD. HKM employs IT personnel that assist and maintain the laboratory LIMS and provide the capability to offer properly formatted EDDs to satisfy any requirements.

4.2.22 Land Use Planning Services

Refer to Appendix B for the qualifications of each staff member on the Confluence Team. Each team member has a natural resource background.